

TEXAS *Biosolids Quarterly*

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In this volume of the *Texas BioSolids Quarterly*, we present a summary of the more significant of the changes made in September 1995 to Title 30 Texas Administrative Code (30 TAC), Chapter 312. Those rules relate to the use, disposal, and transportation of sewage sludge. The changes incorporated recommendations made in late 1994 by a rule revision committee that reflected a broad range of interests: among its members were representatives of cities, agriculture, industries, businesses, water and wastewater treatment operators, and various other interest groups. The second article in this volume explains the steps involved in obtaining a registration from the Texas Natural Resource Conservation Commission (TNRCC) for the beneficial land application of sewage sludge and domestic septage.

Overview of Recent Changes to Rules Concerning Sludge

September 13, 1995, the TNRCC adopted the changes to 30 TAC shown in the table below. These changes became effective statewide October 13, 1995.

Changes to 30 TAC Chapter 312 as of October 13, 1995*			
Subchapter	Old sections repealed:	New sections adopted:	These sections address:
A	312.1-312.13	312.1-312.13	General provisions
B	312.41-312.49	312.41-312.50	Land application of sewage sludge or domestic septage
C	312.61-312.68	312.61-312.68	Surface disposal of sewage sludge
D	312.81-312.83	312.81-312.83	Pathogen and vector attraction reduction
F	—	312.121-312.123	Proper disposal of water treatment sludge

*Subchapters E and G remain unchanged.

In their final form, these rules regulate the beneficial use or disposal of sewage sludge, domestic septage, and water treatment sludge. This article presents the main points of the changes to each subchapter.

How to Obtain Rules:

You may obtain copies of TNRCC rules, either printed or on diskette, from the TNRCC Public Information and Publications Division at (512) 239-0028. The first copy is free, and you may make as many additional copies as you need. Many chapters of 30 TAC undergo frequent revision due to the scope and complexity of federal and state mandates and other rule-making initiatives. The most up-to-date version of 30 TAC is available for on-line viewing to anyone with Internet access and a web browser at the URL: <http://www.tnrcc.state.tx.us/oprd/rules/indxchap.html>

In addition, copies of the regulations may be obtained through the TNRCC OnLine Bulletin Board Service at (512) 239-0700. If you need assistance in accessing TNRCC OnLine, contact the Help Desk at (512) 239-0911.

Subchapter A: General Provisions

Subchapter A outlines the general permitting and registration requirements and the administrative criteria of the

Chapter 312 rules. The major revisions to this subchapter affected the sections pertaining to the requirement for a sewage sludge permit, registration, or notification, to actions and notice, to the sludge fee, to the processing of applications for permits and registrations, and to exclusions.

Sewage Sludge Permit, Registration, or Notification Required:

A permit is required for the storage, processing, incineration, or disposal of sewage sludge, except for storage that is allowed as provided in Sections 312.50, 312.61(c), and 312.147. Registration is required for the beneficial land application of sewage sludge that does not meet Class A standards.

Notification to the TNRCC is required for the land application of sludge that meets Class A requirements. At least 30 days prior to engaging in such activity for the first time, any generator in Texas or any receiver of sewage sludge from an out-of-state source who proposes to store, land-apply, or market and distribute sewage sludge meeting Class A standards must submit the notification on a form approved by the TNRCC.

Actions and Notice: The requirement of the old rules for the posting of a sign was replaced by the mailing of the notice of application from the chief clerk of the TNRCC to adjacent landowners. The chief clerk also mails the notice of application, along with a copy of the registration application, to the county judge(s) in the county or counties in which the proposed site is located. The opportunity for a public meeting afforded by the previous rules was replaced by the opportunity for public comment.

Sludge Fee: The fee structure regarding the final use or disposal of sewage sludge and water treatment sludge was revised. When water treatment sludge is mixed with Class A sewage sludge and that mixture or a sewage sludge that is classified as Class A is land-applied for beneficial land use, the fee is \$0.20 per dry ton. When sewage sludge or water treatment sludge is applied to a site for disposal, the fee is \$1.25 per dry ton if the disposal was authorized by the commission or the predecessor agency before October 1, 1995. However, if the disposal was or is

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authorized by the commission on or after October 1, 1995, the fee would be \$1.25 per ton instead of \$1.25 per dry ton. When water treatment sludge is applied to a site for disposal and the activity does not require a permit (as specified in Subchapter F), the fee is \$0.20 per dry ton. Any sewage sludge or water treatment sludge composted with source-separated yard waste at a composting facility is exempt from fees.

Permit and Registration Applications Processing: All applications are to be reviewed by the executive director for administrative completeness within 14 calendar days upon receipt of the application. Added provisions explain how one determines whether a proposed amendment is major or minor.

Exclusions: The experimental requirements were revised. The tonnage and time limitations for experimental projects in the previous rules were removed. In addition, the executive director was given wide discretion in reviewing proposed experimental projects to ensure that the proposed projects are actually of an experimental nature.

▼▼▼▼▼ **Subchapter B: Land Application for Beneficial Use and Storage at Beneficial Use Sites**

Subchapter B applies to any activity in which sewage sludge or domestic septage is applied to the land. This subchapter establishes the metal limits, operational standards, management practices, and monitoring and reporting requirements for the land application and beneficial use of sludge. The major revisions to this subchapter address metal limits, buffer zones, and nuisance controls.

Metal Limits: Molybdenum metal limits were changed to a monitoring requirement due to the current EPA reevaluation of the molybdenum limit.

Buffer Zones: Under the new rules, when sludge is incorporated into the soil within 48 hours of application and a vegetative cover is established between the application area and all adjacent surface waters, sludge can be land-applied up to 33 feet from surface waters. The buffer zone requirement has been changed to 150 feet for private water supply wells, to 750 feet for established schools, institutions, businesses, or occupied residential structures, and to 50 feet for public rights-of-way. Under the new rules, an applicant can either reduce or eliminate buffer zones established for an established school, institution, business, occupied residential structure or adjacent property if an agreement to that effect is signed by the owners of the established school, institution, business, occupied residential structure or adjacent property and this documentation is provided to the executive director prior to issuance of registration.

Nuisance Controls: Nuisance control provisions were established. These provisions include a prohibition against allowing sewage sludge debris from blowing or moving beyond site boundaries and addresses the temporary storage and staging of sludge at beneficial use sites.

▼▼▼▼▼ **Subchapter C: Surface Disposal**

Subchapter C applies to any activity in which sewage sludge is placed on a surface disposal site. This subchapter establishes the general requirements, metal limits, operational standards, management practices, and monitoring and reporting requirements for the surface disposal of sewage sludge. Added provisions establish requirements for the final cover systems and the post-closure maintenance for the surface disposal units.

▼▼▼▼▼ **Subchapter D: Pathogen and Vector Attraction Reduction**

Subchapter D describes compliance requirements and management options for sewage sludge or domestic septage available to an entity based on treatment with respect to pathogens. It also addresses vector attraction reduction methods required for the use or disposal of sewage sludge and domestic septage. New Section 312.82 provides more flexibility on the choice of pathogen reduction demonstration techniques. The rule now allows the Class A pathogen treatment requirement to be met through one of the processes to further reduce pathogens (PFRPs) or an EPA-approved equivalent method, and the Class B pathogen treatment requirement to be met through processes to significantly reduce pathogens (PSRPs) or through an EPA-approved equivalent method.

▼▼▼▼▼ **Subchapter F: Disposal of Water Treatment Sludge**

This subchapter establishes the minimum requirements for the proper disposal of water treatment sludge. This subchapter, in part, adopts by reference the regulations contained in Title 40 Code of Federal Regulations (CFR) Part 257 (including all appendices to Part 257) as amended and adopted in the CFR through October 9, 1993. This subchapter also outlines the general permitting and registration criteria for the disposal of water treatment sludge. If water treatment sludge is disposed of within five feet of the surface of the land, a registration is required; otherwise, a permit is required. However, water treatment sludge, when mixed with sewage sludge or placed on land along with sewage sludge for disposal, is subjected to all applicable requirements of sewage sludge.

Registering a Site for Beneficial Land Use

Before trying to register a site for beneficial land application of sewage sludge, one must first consider the composition of the sludge. The beneficial land application of sewage sludge or domestic septage requires registration when the sludge meets Class B pathogen reduction requirements (see box), the metal pollutant limits in Section 312.43, and one of the vector attraction reduction options in Section 312.83. The registration must be obtained before any activities related to beneficial land application may begin.

On the other hand, there is only a notification requirement for the beneficial land application of sewage sludge that meets the metal pollutant limits in Table 3 of Section 312.43(b)(3), the Class A pathogen reduction requirements in Section 312.82(a), and one of the vector attraction reduction options in Section 312.83(b)(1)-(8). The disposal of sewage sludge in any other manner (surface disposal, processing, incineration, or storage, except for storage allowed pursuant to 30 TAC Sections 312.50, 312.61, and 312.147, which relate to storage and staging at beneficial use sites, applicability, and temporary storage) requires a permit; persons holding a wastewater permit have the option of permitting the beneficial land use site under their existing wastewater permit as long as the site is under their direct control.

The process of obtaining a registration begins, of course, with completing an application for the registration. Each application is first

Classes of Sewage Sludge:

Sewage sludge is broadly classified into two categories.

Class A sewage sludge is sludge or sludge product that has undergone an extensive treatment process to reduce the pathogens to the lowest levels. In terms of pathogen levels, sewage sludge meeting Class A requirements is considered safe for land application and distribution to the public. 30 TAC Section 312.8 defines Class A sewage sludge as meeting one of the pathogen reduction requirements in Section 312.82(a), which include a baseline requirement of having no greater than 1,000 most probable number (MPN) per gram (dry weight) fecal coliform or no greater than 3 MPN per 4 grams (dry weight) *Salmonella* sp. bacteria.

Class B sewage sludge is sludge or sludge product that has higher levels of pathogens than Class A sludge. 30 TAC Section 312.8 defines Class B sewage sludge as meeting one of the pathogen reduction requirements in Section 312.82(b), one of which is a requirement of having no greater than 2,000,000 MPN or colony-forming units (CFU) per gram (dry weight) fecal coliform. Class B sludge may be land-applied or disposed of only when a number of restrictive management practices are utilized; thus, the requirement of registration.

checked for accuracy and completeness and then reviewed to ensure that there is no risk to the public health and the environment of Texas. The review process involves an administrative review (up to 14 days), a notification period (30 days), a technical review (up to 105 days, beginning concurrently with the notification period), and, if necessary, a time period for reconsideration of the original registration decision (up to 45 days). Each of these steps is explained in greater detail below.

Completing the Application

Completing the registration form for beneficial land use registration, which is available from the TNRCC, requires you to know detailed information regarding the sewage sludge, the site, adjacent landowners, and results of soil tests at the site.

The Sludge: The completed form must state the composition of the sewage sludge and describe all the processes involved in generating the sewage sludge.

The Site: The form calls for detailed information about the site for the final disposition of the sewage sludge. The applicant must provide

the name, address, and telephone number of any landowner or operator at the proposed site, a description of each proposed on-site land application beneficial use unit or tract, a listing of the types of sewage sludge managed in each proposed unit or tract, a description of the beneficial use occurring at the proposed site, including proposed waste management and crop production methods, and information regarding the soil characteristics and subsurface conditions.

Adjacent Landowners: The application must include maps depicting the approximate boundaries of the tract of land under control of the applicant and all residences and businesses bordering the perimeter of the proposed site, along with a list of the names and addresses of the owners of adjacent land.

Results of soil tests: The application must contain the results of tests on soil samples taken from a spatial distribution of one composite sample per 80 acres of similar soil type of the proposed application area. Samples are to be taken for Zone 1 (0-6 inches) and Zone 2 (6-24 inches) and analyzed for the metals regulated by 30 TAC Section 312.43, as well as for nutrients, salinity, and soil pH. An alternate frequency to the 80-acre sampling plan may be used when specified in a sampling plan that is provided by the applicant and approved by the TNRCC before soil sampling begins.

A properly completed form must have all spaces for answers filled in. "Not applicable," or "N/A," may be used to indicate that an item or question has been considered but is irrelevant.

Administrative Review

Administrative review involves checking an application received by the TNRCC to verify that it is complete. The administrative review is to be completed within 14 days of the receipt of an application unless it is incomplete and additional information is requested. If more information is necessary, the TNRCC staff sends a deficiency letter to the applicant. The applicant then has up to 30 days to respond.

Once a registration is administratively complete, the administrative reviewer will draft a *Notice of Receipt of an Application and Declaration of Administrative Completeness* and send it to the chief clerk of the TNRCC for mailing according to the notification procedures. The reviewer also sends the application packet to the permit/registration coordinator of the Sludge and Transporter Review Team for technical review.

Notification Procedure

Once the registration is declared administratively complete, the chief clerk mails the *Notice of Receipt of Application and Declaration of Administrative Completeness* and a copy of the registration application to the county judge in the county of the proposed site. The chief clerk also mails the notice to the adjacent landowners named on the application map or supplemental map, county, state, and federal officials, and other interested individuals who have asked to be notified. The notice includes the name and telephone number of a contact person in the TNRCC and informs the recipient that the county judge has a copy of the registration application. These landowners would include each residence or business located on tracts of land bordering the perimeter of any portion or tract of land where the land application site is to be located.

This notification requirement applies only to new applications or major amendments for land application of Class B sewage sludge. The purpose

How to Obtain Maps:

- ▲ General highway (county) map: Call the Texas Department of Transportation at (512) 465-7397.
- ▲ United States Geological Survey (USGS) topographic map: For assistance in locating maps for your area, call the Texas Natural Resources Information System at (512) 463-8337.
- ▲ United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil map with soil legend and necessary interpretative information: Contact the nearest NRCS office for map information. The phone number for the NRCS state headquarters in Temple is (817) 774-1261.
- ▲ Federal Emergency Management Agency (FEMA) flood insurance rate map showing the location of the 100-year floodplain: Obtain this map from the FEMA Flood Map Distribution Center at (800) 358-9616. For further assistance in Texas, you may contact the TNRCC Floodplain Coordination Team at (512) 239-4771.

of this notice is to provide early notification to persons who may be affected by the proposed activity. Once notice is sent by the chief clerk, a period of 30 days is provided for the public to submit written comments on the proposed land application site. The notice requirements do not apply to Class A notifications, renewals, and minor amendments.

Any comments received from interested individuals are forwarded by the chief clerk to the Sludge and Transporter Review Team. The written information received is utilized by the TNRCC in determining what action to take on the application for registration, which may include actions to approve or deny an application in whole or in part, to deny with prejudice, to suspend the authority to conduct an activity for a specified period of time, or to amend or modify the proposed activity requested by the applicant.

Technical Review

Once the registration is declared administratively complete, the technical staff has 105 days to complete the technical review (technical review is done concurrently with the notice). The 105-day deadline can be extended if the application is not technically complete and additional information is requested by the technical staff. TNRCC staff will conduct a site assessment to verify that the information submitted in the application is accurate and to obtain additional information regarding the application. This information is used in the technical review of the application, and any deficiencies noted must be corrected prior to the drafting of a registration. On a case-by-case basis, an application may be forwarded to the Groundwater Investigations Team for a detailed groundwater impact review. Once that review is complete, a determination of groundwater impact is forwarded to technical staff for review.

Once all the technical information has been received and the public notice requirements have been satisfied, technical staff will submit the proposed registration to the manager with recommendations, based solely

on the technical merit, for approval or disapproval. If the TNRCC approves the proposed registration site, an approval letter (registration document) will be issued. The registration document is developed in accordance with appropriate state and federal regulations, rules, guidance, and policies to protect public health and the environment from any adverse effects from the beneficial land application of sewage sludge. Approval letters for registrations are signed by the manager of the Agriculture Section and forwarded to the Office of Chief Clerk for mailing. The chief clerk mails the approved registration to the applicant and other interested individuals. If the TNRCC disapproves the proposed registration, a letter explaining why the site cannot be registered is sent to the applicant and other interested individuals.

Motion for Reconsideration

An applicant or a person affected by the registration may file with the chief clerk a motion for reconsideration of the executive director's approval of an application. The motion for reconsideration must be filed within 20 days of the date on which the chief clerk mailed the signed registration or other approval to the applicant. The decision of the executive director, including a registration, is not affected by the filing of a motion for reconsideration unless expressly so ordered by the commissioners. If a motion for reconsideration is not acted on within 45 days after the date on which the chief clerk mailed the signed registration to the applicant, the motion is deemed overruled.


Water Well Plugging, Capping, and Testing

The question often arises as to how an applicant can determine whether a well found on a proposed site has been cased and plugged appropriately. The best group to contact for an answer to that question is the TNRCC Water Well Drillers Occupational Certification Team, (512) 239-0530.

FOR MORE INFORMATION

regarding the beneficial land application, processing, surface disposal, and incineration of sewage sludge, water treatment sludge, and domestic septage, please contact the TNRCC Sludge and Transporter Review Team at (512) 239-4710.

The TNRCC is an equal opportunity employer and does not discriminate on the basis of race, color, religion, sex, national origin, age or disability in employment or in the provision of services, programs, or activities. In compliance with the Americans with Disabilities Act, this document may be requested in alternate formats by contacting the TNRCC at (512)239-0010, FAX (512)239-1020 or 1-800-RELAY-TX (TDD), or by writing TNRCC, P.O. Box 13087, Austin, TX 78711-3087.

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